

Contents

- Addison, R. B.**, see Macy, J. M., et al. 66
- Alfredsson, G. A.**, see Kristjansson, J. K., et al. 321
- Andreesen, J. R.**, see Beuscher, H. U. 2
- Azad, H. R., Davis, J. R., Schnathorst, W. C., Kado, C. I.**
Relationships between rhizoplane and rhizosphere bacteria and verticillium wilt resistance in potato 347
- Bal, A. K., Dey, A. C., Hampson, M. C.**
Resting sporangium of *Synchytrium endobioticum*: its structure and composition of the lipids and fatty acids 178
- Bassham, J. A.**, see Ohmori, M., et al. 101
- Behki, R. M., Selvaraj, G., Iyer, V. N.**
Derivatives of *Rhizobium meliloti* strains carrying a plasmid of *Rhizobium leguminosarum* specifying hydrogen uptake and pea-specific symbiotic functions 352
- Beimborn, D. B.**, see Schönheit, P., et al. 247
- Benson, R., Martin, E.**
Physicochemical characterization of cyanophage SM-2 212
- Beuscher, H. U., Andreesen, J. R.**
Eubacterium angustum sp. nov., a Gram-positive anaerobic, non-sporeforming, obligate purine fermenting organism 2
- Bhagwat, A. A., Thomas, J.**
Legume-*Rhizobium* interactions: host induced alterations in capsular polysaccharides and infectivity of cowpea *Rhizobia* 260
- Birnbaum D.**, see Bode, R., et al. 83
- Bock, E.**, see Sundermeyer-Klinger, H., et al. 153
- Bock, E.**, see Kraft, I. 79
- Bodasing, S. J., Brandt, P. W., Robb, F. T., Woods, D. R.**
Purification and regulation of glutamine synthetase in a collagenolytic *Vibrio alginolyticus* strain 369
- Bode, R., Melo, C., Birnbaum D.**
Mode of action of glyphosate in *Candida maltosa* 83
- Bode, W.**, see Morisset, W., et al. 202
- Böcher, R.**, see Schröder, I., et al. 380
- Böger, P.**, see Ernst, A., et al. 120
- Bokranz, M.**, see Schröder, I., et al. 380
- Brahmachari, V., Ramakrishnan, T.**
Studies on 1-methyl adenine transfer RNA methyltransferase of *Mycobacterium smegmatis* 91
- Brandt, P. W.**, see Bodasing, S. J., et al. 369
- Braun, V.**, see Dreher, R., et al. 343
- Braun, V.**, see Mollner S. 171
- Bretschneider, K.**, see Mendgen, K., et al. 307
- Bringer, S., Härtner, T., Poralla, K., Sahm, H.**
Influence of ethanol on the hopanoid content and the fatty acid pattern in batch and continuous cultures of *Zymomonas mobilis* 312
- Callman, J. L., Macy, J. M.**
The predominant anaerobic from the spiral intestine of hatchery-raised sturgeon (*Acipenser transmontanus*), a new *Bacteroides* species 57
- Carlson, C. A., Steenbergen, S. M., Ingraham, J. L.**
Natural transformation of *Pseudomonas stutzeri* by plasmids that contain cloned fragments of chromosomal deoxyribonucleic acid 134
- Claus, D.**, see Fahmy, F., et al. 338
- Cronin, S. E.**, see Grant, M. A., et al. 183
- Davis, J. R.**, see Azad, H. R., et al. 347
- Demain, A. L.**, see Lübke, C., et al. 317
- Desmazeaud, M. J.**, see Lee, C.-W. 331
- Dey, A. C.**, see Bal, A. K., et al. 178
- Diez, J.**, see Ernst, A., et al. 120
- Dilworth, M. J.**, see Smart, J. B., et al. 276, 281, 287
- Dreher, R., Braun, V., Wittmann-Liebold, B.**
Functional domains of colicin M 343
- Eichler, B. Schink, B.**
Oxidation of primary aliphatic alcohols by *Acetobacterium carbinolicum* sp. nov., a homoacetogenic anaerobe 147
- Ensign J. C.**, see Koepsel, R. 9
- Ernst, A., Kirschenlohr, H., Diez, J., Böger, P.**
Glycogen content and nitrogenase activity in *Anabaena variabilis* 120
- Evans, R. W., Kates, M.**
Lipid composition of halophilic species of *Dunaliella* from the dead sea 50
- Eveleigh, D. E.**, see Ghosh, A., et al. 126
- Fahmy, F., Mayer, F., Claus, D.**
Endospores of *Sporosarcina halophila*: characteristics and ultrastructure 338
- Farrand, J. R.**, see Macy, J. M., et al. 66
- Fernández Velasco, J. G., Pucheu, N. L., Romero, O., Tiraboschi, B. H., Garcia, A. F.**
Temperature dependency of the Mg-ATPase and photophosphorylation activities in *Rhodospirillum rubrum* chromatophores 365
- Fiechter, A.**, see Laurila, H., et al. 257
- Florenzano, G., Sili, C., Pelosi, E., Vincenzini, M.**
Cyanospira rippkae and *Cyanospira capsulata* (gen. nov. and spp. nov.): new filamentous heterocystous cyanobacteria from Magadi lake (Kenya) 301
- Fortnagel, P.**, see Sturm, S., et al. 198
- Friedrich, C. G., Suetin, S., Lohmeyer, M.**
Nickel and iron incorporation into soluble hydrogenase of *Alcaligenes eutrophus* 206
- García, A. F.**, see Fernández Velasco, J. G., et al. 365
- Ghosh, A., Ghosh, B. K., Trimino-Vazquez, H., Eveleigh, D. E., Montanecourt, B. S.**
Cellulase secretion from a hyper-cellulolytic mutant of *Trichoderma reesei* Rut-C30 126
- Ghosh, B. K.**, see Ghosh, A., et al. 126
- Glenn, A. R.**, see Hudman, J. F. 252

- Götz, F., see Keller, G., et al. 218
- Gogotov I. N.
Hydrogenase of purple bacteria: properties and regulation of synthesis 86
- Gordon, J. K., see Moore, R. A. 193
- Graham, L. A., Stults, L. W., Maier, R. J.
Nitrogenase - hydrogenase relationships in *Rhizobium japonicum* 243
- Grant, M. A., Cronin, S. E., Hochstein, L. I.
Solubilization and resolution of the membrane-bound nitrite reductase from *Paracoccus halodenitrificans* into nitrite and nitric oxide reductases 183
- Gwynfryn Jones, J., see Maiden, M. F. J. 44
- Häder D.-P.
Effects of UV-B on motility and photoorientation in the cyanobacterium, *Phormidium uncinatum* 34
- Härtner, T., see Bringer, S., et al. 312
- Haider, K., see Trojanowski, J., et al. 326
- Hamaide, F., Sprott, G. D., Kushner D. J.
Energetic basis of development of salt-tolerant transport in a moderately halophilic bacterium, *Vibrio costicola* 231
- Hampson, M. C., see Bal, A. K., et al. 178
- Hashimoto, T., see Mock, R. C. 271
- Hershey, J. W. B., see Howe, J. G. 187
- Hochstein, L. I., see Grant, M. A., et al. 183
- Hooper, A. B., see Jahnke, L. S., et al. 291
- Howe, J. G., Hershey, J. W. B.
The rate of evolutionary divergence of initiation factors IF2 and IF3 in various bacterial species determined quantitatively by immunoblotting 187
- Hudman, J. F., Glenn, A. R.
Selenite uptake and incorporation by *Selenomonas ruminantium* 252
- Hüttermann, A., see Trojanowski, J., et al. 326
- Humphrey, B. A., Marshall, K. C.
The triggering effect of surfaces and surfactants on heat output, oxygen consumption and size reduction of a starving marine *Vibrio* 166
- Ingason, A., see Kristjansson, J. K., et al. 321
- Ingraham, J. L., see Carlson, C. A., et al. 134
- Iyer, V. N., see Behki, R. M., et al. 352
- Jahnke, L. S., Lyman, C., Hooper, A. B.
Carbonic anhydrase, carbondioxide levels and growth of *Nitrosomonas* 291
- Johannssen, W., Schütte, H., Mayer, H., Mayer, F.
Structural analysis of *EcoRI*-DNA complexes as revealed by electron microscopy 265
- Kado, C. I., see Azad, H. R., et al. 347
- Käppeli, O., see Laurila, H., et al. 257
- Karni, L., Moss, S. J., Tel-Or, E.
Glutathione reductase activity in heterocysts and vegetative cells of the cyanobacterium *Nostoc muscorum* 215
- Kates, M., see Evans, R. W. 50
- Kaysel Cruz, A., see Prade, R. A., et al. 236
- Keller, G., Schleifer, K. H., Götz, F.
Cloning of the ribokinase gene of *Staphylococcus hyicus* subsp. *hyicus* in *Staphylococcus carnosus* 218
- Kirschenlohr, H., see Ernst, A., et al. 120
- Knackmuss, H.-J., see Latorre, J., et al. 159
- Koepsel, R., Ensign J. C.
Microcycle sporulation of *Streptomyces viridochromogenes* 9
- Kraft, I., Bock, E.
Plasmids in *Nitrobacter* 79
- Kristjansson, J. K., Ingason, A., Alfredsson, G. A.
Isolation of thermophilic obligately autotrophic hydrogen-oxidizing bacteria, similar to *Hydrogenobacter thermophilus*, from Icelandic hot springs 321
- Kröger, A., see Schröder, I., et al. 380
- Kundu, B., Nicholas, D. J. D.
Proton translocation during denitrification in *Rhodopseudomonas sphaeroides* f. *denitrificans* 358
- Kushner D. J., see Hamaide, F., et al. 231
- Lange, M., see Mendgen, K., et al. 307
- Latorre, J., Reineke, W., Knackmuss, H.-J.
Microbial metabolism of chloroanilines: enhanced evolution by natural genetic exchange 159
- Laurila, H., Käppeli, O., Fiechter, A.
The cytochrome P450-containing monooxygenase of *Trichosporon cutaneum*: Occurrence and properties 257
- Lee, C.-W., Desmazeaud, M. J.
Utilization of aromatic amino acids as nitrogen sources in *Brevibacterium linens*: an inducible aromatic amino acid aminotransferase 331
- Lidstrom, M. E., Wopat, A. E.
Plasmids in methanotrophic bacteria: isolation, characterization and DNA hybridization analysis 27
- Lohmeyer, M., see Friedrich, C. G., et al. 206
- Lübbe, C., Wolfe, S., Demain, A. L.
Repression and inhibition of cephalosporin synthetases in *Streptomyces clavuligerus* by inorganic phosphate 317
- Lyman, C., see Jahnke, L. S., et al. 291
- Macy, J. M., Addison, R. B., Farrand, J. R.
A new irregular coccus from the rumen of an oat-hay-fed Jersey cow; Effect on in vitro digestibility of corn stalks 66
- Macy, J. M., see Callman, J. L. 57
- Maiden, M. F. J., Gwynfryn Jones, J.
Gliding motility of *Peloploca* spp., and their distribution in the sediment and water column of eutrophic lake 44
- Maier, R. J., see Graham, L. A., et al. 243
- Mann, N. H., see Russel, G. C. 294
- Marshall, K. C., see Humphrey, B. A. 166
- Martin, E., see Benson, R. 212
- Mayer, F., see Johannssen, W., et al. 265
- Mayer, F., see Fahmy, F., et al. 338
- Mayer, H., see Johannssen, W., et al. 265
- Melo, C., see Bode, R., et al. 83

- Mendgen, K., Lange, M., Bretschneider, K.**
Quantitative estimation of the surface carbohydrates on the infection structures of rust fungi with enzymes and lectins 307
- Meyer, W.,** see Sundermeyer-Klinger, H., et al. 153
- Mock, R. C., Hashimoto, T.**
Effect of visible light on carotenogenesis in arthroconidiating *Trichophyton mentagrophytes* 271
- Mollner, S., Braun, V.**
Murein hydrolase (N-acetyl-muramyl-L-alanine amidase) in human serum 171
- Montenecourt, B. S.,** see Ghosh, A., et al. 126
- Moore, R. A., Gordon, J. K.**
Metabolism of methylammonium by *Azotobacter vinelandii* 193
- Morisset, W., Wehrmeyer, W., Schirmer, T., Bode, W.**
Crystallization and preliminary x-ray diffraction data of the cryptomonad biliprotein phycocyanin-645 from a *Chromonas spec.* 202
- Moss, S. J.,** see Karni, L., et al. 215
- Mur, L. R.,** see Riegman, R. 96
- Nicholas, D. J. D.,** see Kundu, B. 358
- Ohmori, M., Wolf, F. R., Bassham, J. A.**
Botryococcus braunii carbon/nitrogen metabolism as affected by ammonia addition 101
- Okamura, K.,** see Takamiya, K. 21
- Otto, R.**
Uncoupling of growth and acid production in *Streptococcus cremoris* 225
- Pelosi, E.,** see Florenzano, G., et al. 301
- Perski, H.-J.,** see Schönheit, P., et al. 247
- Pfister, R. M.,** see Surowitz, K. G., et al. 107
- Poralla, K.,** see Bringer, S., et al. 312
- Prade, R. A., Kaysel Cruz, A., Terenzi, H. F.**
Regulation of tyrosinase during the vegetative and sexual life cycles of *Neurospora crassa* 236
- Pucheu, N. L.,** see Fernández Velasco, J. G., et al. 365
- Ramakrishnan, T.,** see Brahmachari, V. 91
- Reineke, W.,** see Latorre, J., et al. 159
- Riegman, R., Mur, L. R.**
Theoretical considerations on growth kinetics and physiological adaptation of nutrient-limited phytoplankton 96
- Robb, F. T.,** see Bodasing, S. J., et al. 369
- Robertson, A. M.,** see Schröder, I., et al. 380
- Robson, A. D.,** see Smart, J. B., et al. 276, 281, 287
- Röhm, M., Werner, D.**
Regulation of the β -ketoadipate pathway in *Rhizobium japonicum* and bacteroids by succinate 375
- Romero, O.,** see Fernández Velasco, J. G., et al. 365
- Russel, G. C., Mann, N. H.**
Serine hydrolases in differentiating *Rhodocyclium vanniellii* swarmer cells 294
- Sahm, H.,** see Bringer, S., et al. 312
- Schink, B.,** see Eichler, B. 147
- Schink, B.,** see Stieb, M. 139
- Schink, B.,** see Stieb, M. 387
- Schirmer, T.,** see Morisset, W., et al. 202
- Schleifer, K. H.,** see Keller, G., et al. 218
- Schnathorst, W. C.,** see Azad, H. R., et al. 347
- Schönheit, P., Beimborn, D. B., Perski, H.-J.**
Potassium accumulation in growing *Methanobacterium thermoautotrophicum* and its relation to the electrochemical proton gradient 247
- Schröder, I., Robertson, A. M., Bokranz, M., Uden, G., Böcher, R., Kröger, A.**
The membranous nitrite reductase involved in the electron transport of *Wolinella succinogenes* 380
- Schütte, H.,** see Johannssen, W., et al. 265
- Selvaraj, G.,** see Behki, R. M., et al. 352
- Sili, C.,** see Florenzano, G., et al. 301
- Smart, J. B., Dilworth, M. J., Robson, A. D.**
Effect of phosphorus supply on phosphate uptake and alkaline phosphatase activity in *Rhizobia* 281
- Smart, J. B., Dilworth, M. J., Robson, A. D.**
Effect of phosphorus supply on periplasmic protein profiles in *Rhizobia* 287
- Smart, J. B., Robson, A. D., Dilworth, M. J.**
A continuous culture study of the phosphorus nutrition of *Rhizobium trifolii* WU95, *Rhizobium* NGR234 and *Bradyrhizobium* CB756 276
- Smits, R. A. M. M., van de Wijngaard, W. M. H., Stassen, A. P. M., van der Drift, C.**
Mutants of *Pseudomonas aeruginosa* unable to inactivate allantoinase and NADP-dependent glutamate dehydrogenase 40
- Sprott, G. D.,** see Hamaide, F., et al. 231
- Stassen, A. P. M.,** see Smits, R. A. M. M., et al. 40
- Steenbergen, S. M.,** see Carlson, C. A., et al. 134
- Stieb, M., Schink, B.,**
A new 3-hydroxybutyrate fermenting anaerobe, *Ilobacter polytropus*, gen. nov. sp. nov., possessing various fermentation pathways 139
- Stieb, M., Schink, B.**
Anaerobic oxidation of fatty acids by *Clostridium bryantii* sp. nov., a sporeforming, obligately syntrophic bacterium 387
- Strøm, A. R.,** see Styrvold, O. B. 74
- Stults, L. W.,** see Graham, L. A., et al. 243
- Sturm, S., Fortnagel, P., Timmis, K. N.**
Immunoblotting procedure for the analysis of electrophoretically-fractionated bacterial lipopolysaccharide 198
- Styrvold, O. B., Strøm, A. R.**
Dimethylsulphoxide and trimethylamine oxide respiration of *Proteus vulgaris*. Evidence for a common terminal reductase system 74
- Suetin, S.,** see Friedrich, C. G., et al. 206
- Sundermeyer-Klinger, H., Meyer, W., Warninghoff, B., Bock, E.**
Membrane-bound nitrite oxidoreductase of *Nitrobacter*: evidence for a nitrate reductase system 153

- Surowitz, K. G., Titus, J. A., Pfister, R. M.**
Effects of cadmium accumulation on growth and respiration of a cadmium-sensitive strain of *Bacillus subtilis* and a selected cadmium resistant mutant 107
- Takamiya, K., Okamura, K.**
Photochemical activities and photosynthetic ATP formation in membrane preparation from a facultative methylotroph, *Protaminobacter ruber* strain NR-1 21
- Tel-Or, E.**, see Karni, L., et al. 215
- Terenzi, H. F.**, see Prade, R. A., et al. 236
- Thomas, J.**, see Bhagwat, A. A. 260
- Timmis, K. N.**, see Sturm, S., et al. 198
- Tiraboschi, B. H.**, see Fernández Velasco, J. G., et al. 365
- Titus, J. A.**, see Surowitz, K. G., et al. 107
- Trimino-Vazquez, H.**, see Ghosh, A., et al. 126
- Trojanowski, J., Hüttermann, A., Haider, K., Wessels, J. G. H.**
Degradation of lignin and lignin related compounds by protoplasts isolated from *Fomes annosus* 326
- Uden, G.**, see Schröder, I., et al. 380
- Vincenzini, M.**, see Florenzano, G., et al. 301
- van der Drift, C.**, see Smits, R. A. M. M., et al. 40
- van de Wijngaard, W. M. H.**, see Smits, R. A. M. M., et al. 40
- Warninghoff, B.**, see Sundermeyer-Klinger, H., et al. 153
- Wehrmeyer, W.**, see Morisset, W., et al. 202
- Werner, D.**, see Röhm, M. 375
- Wessels, J. G. H.**, see Trojanowski, J., et al. 326
- Wittmann-Liebold, B.**, see Dreher, R., et al. 343
- Wolf, F. R.**, see Ohmori, M., et al. 101
- Wolfe, S.**, see Lübke, C., et al. 317
- Woods, D. R.**, see Bodasing, S. J., et al. 369
- Wopat, A. E.**, see Lidstrom, M. E. 27
- Yamaguchi, M., Yoshida, K., Yanagishima, N.**
Isolation, and biochemical and biological characterization of an *a*-mating-type-specific glycoprotein responsible for sexual agglutination from the cytoplasm of *a*-cells, in the yeast *Saccharomyces cerevisiae* 113
- Yanagishima, N.**, see Yamaguchi, M., et al. 113
- Yoshida, K.**, see Yamaguchi, M., et al. 113
- Zannoni D.**
Spectral and functional characterization of membrane fragments from the facultative photosynthetic bacterium *Rhodospseudomonas blastica* 15

